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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,088	06/06/2000	Jeffrey G. Reh	TI-29015	8880
23494	7590	01/18/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			HUBER, PAUL W	
			ART UNIT	PAPER NUMBER
			2653	
DATE MAILED: 01/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/588,088

Applicant(s)

REH ET AL.

Examiner

Paul Huber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 10-13, 16, 17 and 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 14, 15 and 18-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9, 14, 15, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuyuguchi et al. (USP-5,425,014).

Regarding claims 1-5, 9, 18 & 19, Tsuyuguchi et al. discloses a mass memory storage device and a method of reading data stored on a mass memory storage medium 12, the mass memory storage device comprising: a support arrangement (e.g., spindle motor 16) configured to support the mass memory storage medium 12 which stores data at a substantially uniform density (i.e., CLV disk; see col. 2, lines 56-62); a drive arrangement 18 operatively connected to the support arrangement 16 such that the drive arrangement 18 rotates the mass memory storage medium 12 at a substantially constant rotational speed when the mass memory storage device is operated in its intended way (see col. 2, line 66, through col. 3, line 12); a read head 20 for reading the data stored on the mass memory storage medium 12, the read head 20 being positioned adjacent to the stored data on the medium 12 and the read head 20 being movable relative to the medium (by positioning means 22) such that when the mass memory storage medium 12 is rotated at the constant speed, the data is read at a variable rate (see col. 2, lines 66-68, and abstract, lines 8-12); and a read channel arrangement 28 for processing the data read by the read head 20, the read channel arrangement 28 having a substantially continuously variable read channel data processing rate (by clock 44) which only varies according to the rate at which the read head 20 reads the data from the mass memory storage medium 12.

Regarding claims 14 & 15, the mass memory storage device disclosed by Tsuyuguchi et al. inherently includes a housing that receives and supports the mass memory storage medium 12 as claimed.

Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimaru (USP-4,984,227).

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Yoshimaru discloses a method of storing data on a mass memory storage medium having a substantially uniform data storage density. See figure 1, col. 2, lines 34-39, and abstract. A mass memory storage medium 1 is supported by motor 3 for rotation. The medium 1 is rotated at a substantially constant speed by driver 17. See col. 1, lines 66-67. Using a write head 12, data is stored to the medium 1 by positioning the write head 12 adjacent to a desired portion of the medium 1 while the medium is rotated at the constant speed and moving the write head 12 relative to the medium 1 as the data is stored. Then, using a write head controller (elements 22, 23 & 15) having a continuously variable data storing rate, the data is stored on the medium 1 by only varying the data storing rate according to the position of the write head 12 such that the data is stored at a substantially uniform density. See col. 1, lines 61-68, and abstract.

Applicant's arguments filed October 24, 2005 have been fully considered but they are not persuasive.


The applicant argues that "Tsuyuguchi does not disclose or suggest the presently claimed invention including the read channel arrangement for processing the data read by the read head, the read channel arrangement having a substantially continually variable read channel data processing rate which only varies according to the rate in which the read head reads the data from the mass memory storage medium." The examiner respectfully disagrees. Tsuyuguchi teaches that "both the data rate and the clock rate ... vary continuously if, as in the present invention, it is driven CAV" (col. 2, lines 66-68). As shown in reference to figure 1, "the wave shaping circuit 26 reshapes the recovered primary information and clock data into rectangular pulses" (col. 3, lines 26-28). The wave shaped primary information, which varies continuously according to the rate at which the read head reads the data from the medium, is then processed by demodulator 28. "The first clock 30 is a variable frequency oscillator for generating a clock signal that varies continuously in frequency in step with the rate of the clock data being recovered from the successive turns of the track 14 on the disk 12" (col. 3, lines 34-38). The generated clock signal 44 also varies continuously in frequency in step with the rate of the wave shaped primary information which is input into demodulator 28. "The recovered information [is then demodulated] from EFM into NRZ form by the demodulator circuit 28 as this circuit is clocked by the first clock 30 at a rate varying proportion to the varying data rate and clock rate" (col. 5, lines 25-29). Since the generated clock signal 44 and the primary information signal input into demodulator 28 vary continuously in frequency in step with the rate at which the read head reads the data from the medium, the demodulator 28 must process the data read by the read head at a substantially variable read channel data processing rate which only varies according to the rate at which the read head reads the data from the medium. Accordingly the rejection as applied is maintained.

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**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.

  
Paul Huber  
Primary Examiner  
Art Unit 2653

pwh  
January 8, 2006